# NJDOE MODEL CURRICULUM PROJECT

| CONTENT AREA: Mathematics | GRADE: 1 | UNIT: # 3 | UNIT NAME: Understand Place Value |
|---|---|---|---|

| # | STUDENT LEARNING OBJECTIVES | CORRESPONDING CCSS |
|---|---|---|
| **1** | Decompose two- digit numbers as the sum of tens and ones for numbers less than 100. | 1.NBT.2c |
| **2** | Compare two digit numbers using <, >, and = symbols. | 1.NBT.3 |
| **3** | Add a 2-digit and a 1-digit number, and a 2-digit number and a multiple of 10, using concrete models or drawings (sums within 50). Add tens and tens, and ones and ones, by decomposing 2-digit numbers and composing an additional ten when necessary (e.g., 18 + 20 equals 10 + 8 + 20 equals 30 + 8 equals 38; and, 37 + 5 equals 30 + 7 + 5 equals 30 + 12 equals 30 + 10 + 2 equals 40 + 2 equals 42). | **1.NBT.4** |
| **4** | Mentally find ten more or ten less than a number without having to count and explain the reasoning used. | 1.NBT.5 |
| **5** | Subtract multiples of ten from multiples of ten (numbers less than 100, differences greater than or equal to zero) and explain the reasoning used. | 1.NBT.6 |

## Repeated Standards

**SLO #3** is a benchmark for standard **1.NBT.4** in this unit: **Add within 100, including adding a two-digit and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models, or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.**

***Bold type indicates grade level fluency requirements.*** (Identified by PARCC Model Content Frameworks).

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## Selected Opportunities for Connection to Mathematical Practices

1. **Make sense of problems and persevere in solving them.**
   SLO #1 Explain what it means to decompose a two-digit number into two parts (numbers less than 100).
   SLO #3 Explain how to solve addition problems involving 1-digit numbers, 2-digit numbers, and multiples of 10.
2. **Reason abstractly and quantitatively.**
   SLO #1 Understand the quantities that are represented in a two-digit decomposed number.
   SLO #2 Understand the quantities of numbers and their relationship to each other in order to correctly apply the <,>, or = symbols.
3. **Construct viable arguments and critique the reasoning of others.**
   SLO #5 Accurately and efficiently explain the reasoning involved in subtracting multiples of ten from multiples of ten.
4. **Model with mathematics.**
5. **Use appropriate tools strategically.**
   SLO #3 Be able to identify the proper tools to help model addition problems involving 1-digit numbers, 2-digit numbers, and multiples of 10.
6. **Attend to precision.**
   SLO #2 State the meaning behind the <,>, and = symbols, and apply the signs consistently and appropriately.
7. **Look for and make use of structure.**
   SLO #1 Understand the pattern of decomposing numbers less than 100 (e.g. 82 is equal to 8 groups of 10 and two ones).
   SLO #3 Understand the structure involved in adding 2-digit and 1 digit numbers, and 2-digit numbers and a multiple of 10 (include decomposing 2-digit numbers).
8. Look for and express regularity in repeated reasoning.

***Bold type identifies possible starting points for connections to the SLOs in this unit.***

| Code # | Common Core State Standards |
|---|---|
| 1.NBT.2c | Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). |

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| 1.NBT.3 | Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. |
| **1.NBT.4** | Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. |
| 1.NBT.5 | Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. |
| 1.NBT.6 | Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. |

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